

REMARKS/ARGUMENTS

Reconsideration of this patent application is respectfully requested in view of the foregoing amendments and the following remarks.

The Examiner has rejected claims 1 and 3-7 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,839,543 to *Chiu* in view of U.S. Patent No. 4,852,300 to *Keast* and U.S. Patent No. 2,841,390 to *Urguhart*.

It is respectfully submitted that the present invention as claimed in claim 1 is patentable over the above identified references taken either singly or in combination because some of the features presented in claim 1 are not present in any of the above identified references. In addition, even if the features of the present invention as claimed in claim 1 were found in the above identified references, it is respectfully submitted that it would not be obvious to combine the above identified references to arrive at the invention claimed in claim 1.

For example, none of the above identified references disclose a cable that is coupled to two different sides of the

same panel or rolling wheel carrier. For example amended claim 1 states:

...wherein said tension cable is guided around said two deflection rollers and wherein said ends of said tension cable are coupled to different sides of said first rolling carrier...

It is respectfully submitted that this feature is important to achieve a maximum displacement range while using a small installation width. Due to this feature, the end of the tension cable that is guided around the smaller deflection roller reaches the smaller deflection roller at the maximum opening position, wherein the displacement range is not limited by the other end of the tension cable or a tensioning device coupled to the end which is attached at the opposite side of the rolling wheel carrier. For example claim 1 also states:

...said end of said tension cable that is guided around the smaller deflection roller is attached to a side of said first rolling wheel carrier that faces said second rolling carriage, and wherein the other end of said tension cable ~~has another end that is guided around said larger deflection roller, wherein said another~~ other end of said tension cable...

It is respectfully submitted that this feature is also not shown in the above cited references.

For example the examiner in his office action admits that Chiu and Keast do not disclose the above features.

In addition, claim 1 differs substantially from *Urquhart*.

For example *Urquhart* discloses a multi-leaf door having more than two tracks and rolling carriages. The tension cables are fixed directly to the leafs or the "panels" and not to the rolling carriages fixed on top of the leafs. There is a first series of cables, 22, 23, and 24 which provides for moving leafs in an open position and a second series of cables 25, 26, and 27 for moving leafs in a closed position.

In contrast, with the present invention, only one single cable is necessary for the operation of the design of the present invention. In addition the cables are coupled to the rolling carriages and not to the leafs or the panels as disclosed in *Urquhart*.

Furthermore, the design of *Urquhart* operates entirely different from the present invention as claimed in claim 1. With the present invention, the design is only set for operation with two panels. With *Urquhart*, the design can only operate with three panels.

For example, the tension cables (22 and 23) are each fixed with the first end to a first leaf and are guided around a second

leaf, and are fixed with a second end to a third leaf. Thus, this design requires at least three doors which would require much more space than the design of the present invention. Thus, the teachings of *Urquhart* cannot be transferred to a set up with only two leafs or panels such as that claimed in claim 1.

In addition, claim 1 also states:

wherein said tension cable ends are coupled to said first rolling carriage with a parallel offset in a horizontal direction

Thus, with the above design distinction of claim 1, the teachings of *Urquhart* would not lead one to the design of the present invention as claimed in claim 1.

Furthermore, it is respectfully submitted that claim 1 as now amended also discloses an additional feature not found in *Keast*:

wherein said tension cable ends are coupled to said first rolling carriage with a parallel offset in a horizontal direction

The Examiner has stated that *Keast* discloses a parallel offset. *Keast* does not disclose a parallel offset in a horizontal direction as stated in now amended claim 1. Instead, *Keast* discloses a parallel offset in a vertical direction.

According to the teachings of *Keast*, the stacking gates do not comprise an overhead structure wherein the structure of stacking gates disclosed by *Keast* is explicitly distinguished from doors comprising an overhead structure. For example, column 1, line 18, and lines 35 to 37 teach away from using an overhead structure. Instead, in *Keast*, the stacking gates comprise at their top, a means for maintaining the tops in a spaced apart condition. Accordingly, the arrangement of an overhead structure is neither necessary, nor possible.

Thus, it is respectfully submitted that a person skilled in the art would not even consider the teachings of *Keast* to improve the overhead structure of an elevator shaft door.

For example, *Keast* does not disclose a single tension cable that is fixed in place, but two roller chains that are each as a whole, arranged with parallel offset. However, this parallel offset is in a vertical direction. For example, in *Keast*, the connection points to the anchor post 19, studs 23 and 27 and the idler sprockets 22 and 26 are arranged with the same parallel offset. These roller chains are not mounted to a rolling carriage, as claimed in claim 1 of the present invention, but directly to the front of the trailing gate.

It is respectfully submitted that it is impossible to fix the ends of the two roller chains on opposite sides of a trailing gate, because the roller chains must remain in a single vertical plane as described in column 1 lines 60 to 62 and as shown in FIG. 4. Thus, in this regard, drive systems suitable for use as disclosed in claim 1 of the present application cannot be adapted for the use of roller chains of *Keast* as disclosed in column 1 lines 60 to 62, and thus, the drive systems of *Keast* cannot be adapted back to the drive systems of the present invention either.

Even though the above cited references in combination do not disclose the invention as claimed in claim 1, it is respectfully submitted that even if the above cited references led to all of the claimed features, it would also not be obvious to combine the above cited references together to arrive at the present invention.

For example, only *Chiu* relates to a disclosure for elevator doors having an overhead structure. Both *Keast* and *Urquhart* do not relate to this type structure. For example, *Keast* is directed towards "stacking gates" which would be appropriate for driveways, (see column 1 line 14) wherein these gates do not have an overhead structure (see column 1 lines 35-37).

Urquhart relates to a door operating system for airplane hangars, factories, warehouses. There is no mention of using the design of *Urquhart* for a confined enclosure such as an elevator door. In addition, given the complexity of designs of *Chiu*, *Keast* and *Urquhart*, it is respectfully submitted that the combination of these references would not result in a likelihood of success of a design similar to that of claim 1. This is because when applying the designs of *Keast* and *Urquhart* to a confined space such as an elevator door, considerable design changes would be required to all three designs before any success could even be remotely achieved.

Therefore, it is respectfully submitted that claim 1 as amended is patentable over the above cited references taken either singly or in combination.

Claim 1 has been amended. Claims 2, 8 and 9 have been canceled without prejudice. Claims 2-7 and 10 depend from claim 1. Claim 10 is new. Support for claim 10 can be found in FIG. 2B and in the specification on page 6 last paragraph.

Applicant respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

A handwritten signature in cursive script, reading "William C. Collard". The signature is written in dark ink and is positioned above a horizontal line.

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